

REMARKS

This is in response to the Final Rejection of September 9, 2005. Claims 1-32 were rejected. Claims 7 and 9 were cancelled. Claims 1, 12, 22, 28, 29, 30, and 31 were amended. Claims 1-6, 8, and 9-32 are pending.

Applicant has amended claim 1 to include some of the limitations of dependent claims 7 and 9. As amended, claim 1 clarifies that the graphical stress test includes monitoring pixel errors and that the stress test passes if the number of pixel errors is below a threshold level of pixel errors. Applicant has also amended the other independent claims 12, 22, 28, 29, 30, and 31 to clarify that the graphics stress test is based on monitoring the number of pixel errors and that the stress test passes if the number of pixel errors is below a threshold level. The claim amendments thus introduce elements of previously considered dependent claims into the independent claims. Entry and reconsideration is respectfully requested.

The Examiner has rejected the pending claims over Bigjakkstaffa on the basis that Applicant's claimed invention merely automates the process of Bigjakkstaffa. The Examiner cited MPEP 2144.04 "Automating a Manual Activity" and the case of In re Venner. Note however that rejections under MPEP 2144.04 for automating a manual activity only are applicable when the "automatic or mechanical means [is used] to replace a manual activity which accomplished the same result." MPEP 2144.04. Applicant respectfully submits that the present situation is different than that described in MPEP 2144.04 and In re Venner on several grounds.

Applicant's claimed invention produces a different result than Bigjakkstaffa. This is in contrast to In re Venner (described in MPEP 2144.04) which is for the situation where automation produces the same result as a manual technique. Applicant's claimed invention monitors pixel errors generated in a graphical test. The number of pixels in a computer screen varies depending upon the screen size and resolution. However, as an illustrative example, a screen with a 640 x 480 resolution would have approximately 350,000 pixels. High resolution screens may have upwards of 700,000 or more pixels. A human observer cannot count individual

pixel errors in a graphical image, particularly if there are only a small number of pixel errors, isolated pixel errors (e.g., the pixel errors do not occur as large groups of pixels), or the pixel errors do not have sufficient visual contrast to stand out from neighboring pixels.

Applicant's claimed invention executes a stress test in which pixel errors are monitored and a stress test passes if a "number of pixel errors is below a threshold level." Bigjakkstaffa does not teach or suggest such a stress test because end-users are not capable of detecting and quantifying errors in individual pixels merely by observing glitches in a displayed graphical image. Bigjakkstaffa describes an end-user looking for graphical glitches on a display screen using their eyes. However, in order for the errors to be observable they must be gross errors, not errors in individual pixels. Bigjakkstaffa, for example, describes looking for "unusual graphical glitches" such as flickering of textures. Note also that in Bigjakkstaffa pixels errors cannot be reliably quantified because two end-users with different degrees of visual acuity will not see the same graphical glitches at the same level of overclocking. A person with 20/40 vision may not, for example, be capable of seeing a graphical glitch that someone with 20/20 vision would. As another example, in Bigjakkstaffa an end-user who is partially color-blind may not see the same graphical glitches that an individual with normal color vision would spot. Thus, the manual technique of Bigjakkstaffa is incapable of identifying errors at the pixel level and is not quantifiable in a reproducible manner because it depends on human observers noticing gross graphical errors on a display screen.

Applicant's claimed invention also produces a different result than Bigjakkstaffa in that Applicant's claimed invention eliminates several problems associated with manual overclocking which are described in paragraphs [0004] and [0036] of Applicant's specification. Manual techniques rely on imprecise observation of graphical glitches by end-users. The end-user thus has a significant risk that they will pick improper overclocking parameters during testing. In contrast, Applicant's claimed invention permits the stress on the graphical chip to be monitored at a fine level of granularity corresponding to pixel-errors which can be counted and quantified in a reproducible manner. As a result, there is improved control over the selection of overclocking parameters reducing the risk that the overclocking parameters will be improperly

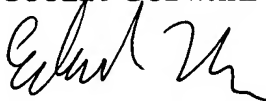
chosen. Manual techniques like Bigjakkstaffa require an end-user to push the overclocking until graphical glitches appear on a display screen. However this risks hanging the chip, i.e., at high overclocking levels a chip can "hang-up" such that the chip stops working and the entire system must be rebooted. In contrast, Applicant's claimed invention utilizes a graphical test in which errors are monitored on a pixel-by-pixel basis. The improved control permitted in Applicant's claimed invention eliminates the need in manual techniques to push the overclocking to the point where gross glitches, such as hanging the chip, routinely occur. Additionally, the improved control permitted by Applicant's claimed invention improves the safety with which an optimum set of overclocking parameters may be selected. In contrast, Bigjakkstaffa warns that in manual overclocking there is a risk that the graphics card may "go boom, and then it's goodnight Vienna I'm afraid."

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is now in condition for allowance. The Examiner is invited to contact the undersigned if there are any residual issues that can be resolved through a telephone call.

The Commissioner is hereby authorized to charge any appropriate fees to Deposit Account No. 03-3117.

Dated: November 9, 2005

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